

REMARKS

The Office examined claims 1-16 and rejected same. With this paper, the claims are unchanged except to correct a typographical error (in three claims), so that claims 1-16 are still pending.

Rejections under 35 USC §102

At section 1 of the Office action, claims 1-16 are rejected under 35 USC §102 as being anticipated by EP 0701334, with Harri Jokinen as inventor, hereinafter Jokinen (referred to as Frain in the Office action, Frain being the first name in the firm representing Jokinen).

The independent claims are method claims 1, 2, and apparatus claims 9 and 14, both reciting limitations corresponding to those of claim 1.

The rejection is based on the same reference as was used in the previous Office action. Applicant pointed out in response to the previous Office action that Jokinen fails to teach the recited calculation of a correlation sequence, which in claims 1, 9 and 14 is recited as being performed by averaging symbols of a received training sequence, which includes a correlation sequence followed by an additional part. As recited in claim 2, the calculation is performed by averaging received bits at the beginning of a received correlation sequence with bits received after the correlation sequence, in the additional part. As explained in response to the previous Office action, the recited averaging to arrive at a new correlation sequence allows using only a single set of correlations to arrive at a channel impulse response, compared to two calculations needed by Jokinen.

The Office now makes in effect the same rejection as before, but now acknowledges that Jokinen fails to disclose calculating a correlation sequence based on averaging symbols of a received

training sequence. To compensate for the failing by Jokinen in respect to the recited averaging, in rejecting claim 1 the Office asserts that:

Since Frain [Jokinen] does suggest the received training sequence is a set of symbols (0 and 1) (See fig. 4) and the correlation sequence is selected as the subset of symbols (0 and 1) of the training sequence, and further averaging symbols is known in the art as one simple way of numerous ways in mathematic [sic] to determine a norm of a list of symbols; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to derive the correlation sequence by averaging symbols of the received training sequence for the advantage of giving the user more flexibility in computing the channel impulse response.

Since the Office provides no documentary evidence for the assertion that the recited averaging would have been obvious, the Office is taking Official Notice that the recited averaging is common knowledge.

Applicant traverses the taking of Official Notice

In order to traverse the Office making a finding that a limitation is "common knowledge," i.e. taking Official notice, the MPEP at 2144.03 provides that:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.

Applicant here traverses the taking of Official notice, on the following grounds:

First, per the MPEP also at 2144.03:

It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based.

Applicant respectfully submits that in the rejections at issue, the Office is relying on Official notice as substituting for the

principal evidence upon with the rejections are based. As explained in response to the previous Office action, the recited averaging used to calculate a new correlation sequence allows performing a single set of correlations. Jokinen does not teach or suggest any kind of process that provides a similar result. Although Jokinen teaches the use of a training sequence that is the same as a possible training sequence used in the invention, Jokinen nonetheless teaches performing two sets of correlations using two different correlation sequences, and then averaging the results of the two sets of correlations. Thus, two sets of correlations are performed, according to Jokinen, whereas the recited averaging of the invention allows relying on only a single set of correlations. Applicant respectfully submits that as there is no teaching or suggestion in Jokinen of even addressing the problem of how to reduce the number of sets of correlations, and as the Office is not relying on any other evidence in this regard, the taking of Official notice is all that stands between the Office rejecting all the claims of the application and allowing all the claims (since not only claim 1, but all the claims recite the averaging of claim 1 at least to the level of specificity of claim 1), and thus the Office is relying on its Official notice as the principal evidence upon which the rejection of claim 1 (and also the other claims) is based, which it cannot do per the MPEP at 2144.03.

Second, the reason the Examiner gives for why the noticed fact is considered to be common knowledge or well-known in the art is wrong on technical grounds. For one thing, the Examiner asserts that the recited averaging is used to "determine a norm of a list of symbols," but this is not a correct representation of what is recited. As recited, the averaging is used to determine a new correlation sequence. Thus, symbols of a received training sequence are averaged together and used in providing symbols of

the new correlation sequence. This is different than simply trying to "determine a norm of a list of symbols."

For another thing, The Examiner's action asserts that "it would have been obvious ... to derive the correlation sequence by averaging symbols of the received training sequence for the advantage of giving the user more flexibility in computing the channel impulse response," but there is no user involved in the calculation of the channel impulse response, and further, the recited averaging in no sense provides "more flexibility" than the calculations of Jokinen, using two sets of correlations.

The same argumentation applies to claims 2, 9 and 14.

Applicant thus respectfully submits that the taking of Official action is properly and also seasonably traversed, and requests that the Office provide documentary evidence of determining a new correlation sequence by averaging symbols of a received training sequence, or that the Office withdraw all the rejections under 35 USC §102. Applicant respectfully insists that the Examiner must show not simply that averaging, without more is common knowledge, but that the recited averaging is common knowledge, i.e. that determining a new correlation sequence by averaging symbols of a received training sequence is common knowledge.

But further in regard to claim 2: Claim 2 recites calculating a correlation sequence using a received training sequence, by averaging a predetermined number of symbols from one end of the received correlation sequence with a predetermined number of corresponding symbols from an additional part at the other end of the received training sequence. In rejecting claim 2, although it clearly recites a more specific averaging than the averaging recited in claims 1, 9 and 14, the Examiner nonetheless uses exactly the same reasoning for why the noticed fact is considered

to be common knowledge or well-known in the art. This reasoning is therefore wrong on technical grounds just as it was for claims 1, 9 and 14, as asserted above, but for a rejection of claim 2 based on Official notice, applicant respectfully requests that the Examiner provide documentary evidence not merely of determining a new correlation sequence by averaging symbols of a received training sequence, but of calculating a correlation sequence using a received training sequence by averaging a predetermined number of symbols from one end of the received correlation sequence with a predetermined number of corresponding symbols from an additional part at the other end of the received training sequence. Applicant respectfully submits that without such documentary evidence, in view of applicant having properly and seasonably traversed the taking of Official notice, claim 2 and all claims depending therefrom are allowable over the applied art.

Conclusion

For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. Applicant's attorney urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

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Date

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